Southern Alberta Institute of Technology

**Database Creation for Travel Experts Agency**

by

**Femi Adams**

Supervised by

David Haas

Masha Amini

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# Cover letter

May 3, 2023

Travel Expert Agency,

123 Main Street T1Y 5R9,

Calgary,

Alberta.

Dear Management,

I am writing to submit a proposal for the development of a database and reporting system for Travel Experts Travel Agency. As a leading provider of software development services, we are confident that we can deliver a high-quality solution that meets the unique needs of your organization.

This proposal outlines our approach to the project, including the project objectives, scope, constraints, assumptions, approach, deliverables, project schedule, and budget. We have also included recommendations for next steps and progress reporting.

We appreciate your consideration of our proposal and look forward to the opportunity to work with your organization. Please do not hesitate to contact us if you have any questions or require additional information.

Sincerely,

Femi Adams

Dabasys Inc

# Executive summary

Travel Experts Travel Agency needs a database and reporting system that will allow them to store customer and supplier information, track sales and commissions, and identify marketing opportunities. They have allocated a budget of $500,000 for the development of the system, with the potential for other Canadian agencies to purchase it in the future.

Our proposal outlines our approach to the project, including the development of a database prototype using Oracle and the creation of a user-friendly graphical interface. We will work closely with the agency to understand their specific requirements and ensure that the system is designed to accommodate future enhancements and web integration.

Our team has extensive experience in software development and database design, and we are confident that we can deliver a high-quality solution that meets the needs of Travel Experts Travel Agency. We have outlined a project schedule and budget that will allow us to complete the project on time and within budget.

# Background

Travel Experts Travel Agency is a Calgary-based travel agency that employs 16 travel agents, 1 manager, and an owner. The agency has identified the need for a database and reporting system that will allow them to store customer and supplier information, track sales and commissions, and identify marketing opportunities. Although there are few travel industry-related software packages available, none of them meet the specific needs of the agency.

# Business objectives

The business objectives of Travel Experts Travel Agency are to:

1. Store customer and supplier information in a central database
2. Track sales and commissions to ensure proper calculations and identify outstanding commissions
3. Identify marketing opportunities using sales and customer data
4. Develop a user-friendly graphical interface for easy use by travel agents

# Project objectives

The project objectives of this proposal are to:

1. Develop a database prototype using Oracle that meets the specific needs of Travel Experts Travel Agency
2. Create a user-friendly graphical interface for easy data entry and reporting
3. Ensure that the system is designed to accommodate future enhancements and web integration
4. Work closely with the agency to ensure that their specific requirements are met
5. Complete the project on time and within budget

# Scope

The scope of the project includes the development of a database prototype using Oracle and the creation of a user-friendly graphical interface. The database will store customer and supplier information, track sales and commissions, and allow for the identification of marketing opportunities. The graphical interface will be designed to allow for easy data entry and reporting. The system will be designed to accommodate future enhancements.

Our team has evaluated various database systems and operating systems for the Travel Agency project, and after careful consideration, we recommend Oracle Database and Ubuntu Linux as the best software/hardware solution for the agency. In this proposal, we will outline the reasons for our recommendation and provide a detailed plan for the complete project.

### Database System:

We recommend using Oracle Database for the Travel Agency project. Oracle is a well-established database system that offers robust features for managing large amounts of data, ensuring data integrity and security, and providing scalability for future growth. It also provides advanced analytics and reporting capabilities that can be beneficial for the travel agency to gain insights into their business operations.

### Hardware Solution:

To ensure optimal performance of the Travel Agency database system, we recommend using the following hardware solution:

Processor: Intel Core i7 or higher

RAM: 16 GB or higher

Storage: Solid State Drive (SSD) with at least 500 GB capacity

Network Interface Card (NIC): Gigabit Ethernet

Backup Solution: RAID 5 array or higher

### Reasons for Selection:

We have selected Oracle Database and Ubuntu Linux based on the following factors:

1. Reliability: Oracle Database is known for its reliability, scalability, and data integrity. It also has a proven track record of being used by many businesses worldwide, including travel agencies.
2. Security: Oracle Database provides advanced security features such as encryption, user authentication, and access control, which are essential for protecting sensitive data such as customer information.
3. Performance: Oracle Database is optimized for high-performance and can handle large volumes of data with ease. Ubuntu Linux is known for its stability and ability to run resource-intensive applications such as databases.
4. Support: Both Oracle and Ubuntu have large communities of developers and users, and there is ample support available for any technical issues that may arise during the project.

# Constraints

There are some constraints that need to be considered during the development of the database prototype. These constraints include:

Budget: The project budget is $500,000 which means that the development team needs to work within this budget.

Timeframe: The project needs to be completed within a specific timeframe, and any delays may impact the overall success of the project.

Resources: The development team needs to have access to the necessary resources, including hardware, software, and personnel.

# Assumptions

To ensure the success of the project, the following assumptions have been made:

The development team has the necessary expertise to design and develop the database prototype using Oracle.

The travel agency will provide all the necessary information and data required for the database prototype.

The travel agency will provide feedback and guidance throughout the development process.

# Approach

The development team will follow a structured approach to design and develop the database prototype. The approach will include the following steps:

Requirements gathering: The team will gather all the requirements from the travel agency and document them.

**Design:** The team will design the database prototype based on the requirements gathered.

Development: The team will develop the database prototype using Oracle.

Testing: The team will test the database prototype to ensure that it meets the requirements and is free from errors.

Deployment: The team will deploy the database prototype to the travel agency.

User training: The team will provide user training to the travel agency staff to ensure that they can use the system effectively.

# Deliverables

The following deliverables will be provided as part of the project:

Requirements document: This document will outline all the requirements for the database prototype.

Design document: This document will provide the database prototype design.

Database prototype: The database prototype will be developed using Oracle.

Testing report: This report will provide the results of the testing conducted on the database prototype.

User manual: This manual will provide instructions on how to use the system.

User training: The development team will provide user training to the travel agency staff.

# Project Schedule

The project schedule is as follows:

1. Requirements gathering: 4 weeks
2. Design: 10 weeks
3. Development: 10 weeks
4. Testing: 3 weeks
5. Deployment: 1 week
6. User training: 2 weeks
7. Total project duration: 30 weeks

# Budget

The project budget is $500,000. The budget will be used to cover the costs associated with hardware, software, personnel, and other expenses.

### Hardware expenses

Server: $10,000

Network equipment (switches, routers, cables, etc.): $5,000

Desktop computers for travel agents and managers: $20,000

Printers and scanners: $5,000

Backup and storage devices: $10,000

Total hardware expenses: $50,000

### Software expenses:

Oracle Database Software: $20,000

Oracle Database Administrator Tool: $5,000

Development software (IDE, code repository, etc.): $5,000

Reporting software: $5,000

Anti-virus and security software: $5,000

Total software expenses: $40,000

### Personnel expenses:

Project Manager: $100,000

Database Developer: $80,000

Database Administrator: $80,000

Reporting Developer: $60,000

Help Desk Support: $60,000

Training Specialist: $50,000

Total personnel expenses: $430,000

### Other expenses:

Office space rent: $10,000

Office supplies and equipment: $5,000

Training materials and documentation: $5,000

Contingency (unforeseen expenses): $10,000

Total other expenses: $30,000

# Recommendations

Based on the requirements and constraints of the project, the development team recommends that the travel agency consider the following:

Providing access to all the necessary data and information required for the development of the database prototype.

Providing feedback and guidance throughout the development process to ensure that the final product meets their needs.

Allocating sufficient resources, including personnel, to ensure the success of the project.

# Next Steps/ Progress Reporting

The development team will provide progress reports to the travel agency on a regular basis throughout the project. The progress reports will provide updates on the status of the project, including any issues or risks that need to be addressed. The development team will also communicate any delays or changes to the project schedule or budget as soon as they are identified.

# Appendix

The appendix will include any additional information or documentation related to the project, such as technical specifications, diagrams, or charts.